53. (Twice Amended) A therapeutic vaccine composition comprising [an] a therapeutically effective amount of a composition comprising at least one of the following E1 [and/or] and E2 peptides:

E1-31 (SEQ ID NO:56) spanning amino acids 181 to 200 of the Core/E1 V1 region,

E1-33 (SEQ ID NO:57) spanning amino acids 193 to 212 of the E1 region,

E1-35 (SEQ ID NO:58) spanning amino acids 205 to 224 of the E1 V2 region (epitope B),

E1-35A (SEQ ID NO:59) spanning amino acids 208 to 227 of the E1 V2 region (epitope B),

1bE1 (SEQ ID NO:53) spanning amino acids 192 to 228 of E1 regions V1, C1, and V2 regions (containing epitope B),

E1-51 (SEQ ID NO:66) spanning amino acids 301 to 320 of the E1 region,

E1-53 (SEQ ID NO:67) spanning amino acids 313 to 332 of the E1 C4 region (epitope A),

E1-55 (SEQ ID NO:68) spanning amino acids 325 to 344 of the E1 region,

Env 67 or E2-67 (SEQ ID NO:72) spanning amino acid positions 397 to 418 of the E2 region (epitope A),

Env 69 or E2-69 (SEQ ID NO:73) spanning amino acid positions 409 to 428 of the E2 region (epitope A),

Env 23 or E2-23 (SEQ ID NO:86) spanning positions 583 to 602 of the E2 region (epitope E),

Env 25 or E2-25 (SEQ ID NO:87) spanning positions 595 to 614 of the E2 region (epitope E),

Env 27 or E2-27 (SEQ ID NO:88) spanning positions 607 to 626 of the E2 region (epitope E),

Env 178 or E2-178 (SEQ ID NO:83) spanning positions 547 to 586 of the E2 region (epitope D), and

Env 13B or E2-13B (SEQ ID NO:82) spanning positions 523 to 542 of the E2 region (epitope C).

3 sub E1 D3

55. (Amended) A method of [immunizing] treating a mammal [against] infected with HCV comprising administering an effective amount of a composition according to any one of claims 49-51 and, optionally, a pharmaceutically acceptable adjuvant.

Add the following claims:

D5

--57. A composition comprising at least one purified recombinant HCV recombinant envelope proteins selected from the group consisting of an E1 protein and an E2 protein, and optionally an adjuvant.

58. A composition comprising at least one of the following E1 and E2 peptides:

E1-31 (SEQ ID NO:56) spanning amino acids 181 to 200 of the Core/E1 V1 region,

E1-33 (SEQ ID NO:57) spanning amino acids 193 to 212 of the E1 region,

E1-35 (SEQ ID NO:58) spanning amino acids 205 to 224 of the E1 V2 region (epitope B).

E1-35A (SEQ ID NO:59) spanning amino acids 208 to 227 of the E1 V2 region (epitope B),

1bE1 (SEQ ID NO:53) spanning amino acids 192 to 228 of E1 regions V1, C1, and V2 regions (containing epitope B),

E1-51 (SEQ ID NO:66) spanning amino acids 301 to 320 of the E1 region,

E1-53 (SEQ ID NO:67) spanning amino acids 313 to 332 of the E1 C4 region (epitope A),

E1-55 (SEQ ID NO:68) spanning amino acids 325 to 344 of the E1 region,

Env 67 or E2-67 (SEQ ID NO:72) spanning amino acid positions 397 to 418 of the E2 region (epitope A),

Env 69 or E2-69 (SEQ ID NO:73) spanning amino acid positions 409 to 428 of the E2 region (epitope A),

Env 23 or E2-23 (SEQ ID NO:86) spanning positions 583 to 602 of the E2 region (epitope E),

Env 25 or E2-25 (SEQ ID NO:87) spanning positions 595 to 614 of the E2 region (epitope E),

Env 27 or E2-27 (SEQ ID NO:88) spanning positions 607 to 626 of the E2 region (epitope E),

Env 178 or E2-178 (SEQ ID NO:83) spanning positions 547 to 586 of the E2 region (epitope D), and

Env 13B or E2-13B (SEQ ID NO:82) spanning positions 523 to 542 of the E2 region (epitope C).

SUB E2> 59. A therapeutic vaccine composition comprising a therapeutic effective amount of a composition comprising an E1/E2 complex formed from purified recombinant HCV single or specific oligomeric recombinant E1 or E2 proteins; and optionally a pharmaceutically acceptable adjuvant.

60. A composition according to claim 59 wherein said recombinant HCV envelope proteins are produced by recombinant mammalian cells.

61. A composition according to claim 59 wherein said recombinant HCV envelope proteins are produced by recombinant yeast cells.

SUB E3> 62. A method of treating a mammal infected with HCV comprising administering an effective amount of a composition according to any one of claims 59-61 and, optionally, a pharmaceutically acceptable adjuvant.

3

D' cont 3 63. The method of claim 62 wherein said mammal is a human.--

REMARKS

Reconsideration is requested.

The claims have been amended to place the application in condition for allowance, without prejudice. Claims 52 and 54 have been canceled, without prejudice. The claims have been amended to specify the composition of claims 49-51, and 53 are therapeutic compositions. The methods of claims 55 and 56 have been similarly amended to indicate the methods are